



Colorado Technical University Online
TAKE YOUR CAREER TO NEW HEIGHTS

Graduate in 15 Months; CTU Online makes it possible

Undergraduate Programs

- Bachelor's (BSBA) in Information Technology
- Bachelor's (BSBA) in Management
- Bachelor's (BSCJ) in Criminal Justice
- Bachelor's (BSBA) in Marketing

Graduate Programs

- Executive Master of Business Administration (EMBA)
- Master's (MSM) in Information Systems Security
- Master's (MSM) in Information Technology Management
- Master's (MSM) in Project Management

Click anywhere on this ad to view program information.

The Salt Lake Tribune

WWW.SLTTRIB.COM

WORLD | UTAH | BUSINESS | SPORTS | OPINION | FEATURES | CLASSIFIEDS

THURSDAY
August 5, 2004

Quick Search

Enter search term

Go

Advanced Search

Business
WSJ Sunday
Stocks

News

Contents
Obituaries
Utah Politics
Lori Hacking
Drought
Archives

Weather

Columnists

Opinion

Editorials
Commentary
Public Forum
Bagley Cartoons

Sports

Stingers
College Sports
Utah Jazz
Prep Sports
Athens 2004

Features

Film Finder
Arts
Travel
Home & Family
Health & Science
Food
Outdoors
The Mix
Faith

Entertainment

[Link To Article](#) [Print Article](#) [Email Article](#)

Article Last Updated: 07/27/2004 12:06:42 AM

California farms turn manure into energy

Once pesky product becomes a cash crop

By Juliana Barbassa
The Associated Press

More than a dozen dairies in California are building contraptions to turn one of their least-valued products - the gases that rise from decomposing manure - into one of the state's most sought-after commodities - energy.

The state's 1.72 million dairy cows, clustered heavily in the Central Valley, have made California the country's top dairy state. Their milk and cream sell for more than \$4 billion a year, and the industry brings jobs and tax revenue to counties with double-digit unemployment.

But according to air officials, the state's cows also contribute about 10 percent of the chemical compounds that combine in the atmosphere to produce ozone, a principal component in the smog that plagues the San Joaquin Valley's air.

By capturing the offending gases of dairy air, farmers are not only reducing the emissions that cloud the valley, but cutting their own electricity costs. The decidedly low-tech technology also has the potential to play a role, albeit a small one, in meeting the state's constant hunger for new power sources.

The farmer has to scrape up the manure, mix it with water, and pour it into a lagoon typically covered by an enormous plastic bag. When the mixture is heated, it produces methane, which is trapped by the bag, piped into a generator, and burned to create electricity.

The experiment comes at a time when the agriculture industry is having to abide by air pollution regulations for the first time. The local air district is



Ronald Koetsier stands near a pile of manure near a methane digester at his farm in Tulare, Calif. A number of California dairies are turning manure gases into energy. (Gary Kanzenjian/The Associated Press)



Lifestyle

Shopping

Classifieds
Retail Ads
Cars/RVs
Real Estate
Jobs
Education Guide
Bride Guide
Utah City Guide
Grocery Guru
Fantasy Sports
Advertising Info
Bus./Industry

Extras

Reader Panel
Crossword
Not in Print
NIE

Services

Subscribe
Help Desk
FAQ
Contact Us
Privacy Policy

expected to issue guidelines for clean-air technology that will be required in new dairies - and so-called "methane digesters" are part of the solution, officials said.

"This is probably one of the best forms of emission control from dairies,"

said Dave Warner, who leads the San Joaquin Valley Air Pollution Control District's permit program.

But what really got farmers interested, they said, was that the machines literally turn manure into money.

Ron Koetsier, who has 1,200 dairy cows on 160 acres near Visalia in Tulare County, qualified for a matching grant from the state, and since 2002 has

been saving about \$30,000 a year on energy costs - about half his annual bill - because he can now produce most of the energy he needs onsite.

Once his digester is hooked up to the local utility company, Koetsier said he'll be able to bank energy with the company. When he feeds excess energy into the system, his electricity meter will run backward.

Methane digesters won't produce enough energy to make a significant dent in the state's energy demand - or even come close, experts said.

Manure from one cow can generate up to two kilowatts per day - enough to brighten two light bulbs.

Even if all of the 65 billion pounds of manure produced in California every year went into a methane digester, the energy generated could only power a medium-sized town.

Advertisement



[RETURN TO TOP](#)

© Copyright 2004, The Salt Lake Tribune.

All material found on Utah Online is copyrighted The Salt Lake Tribune and associated news services. No material may be reproduced or reused without The Salt Lake Tribune.

Google Sponsored Links

Silicone Plastics

Agriculture Products, dairy equip, inflations, misc. milking products

www.siliconeplastics.com

FarmWizard IT Solutions

Dairy Breed Cycle Agri-IT service Evaluate & improve your dairy herd

www.farmwizard.com

[Front Page](#) | [Contents](#) | [Search](#) | [World/Nation](#) | [Utah](#) | [Business](#) | [Sports](#) | [Editorials](#) | [Public Forum Letters](#) | [Commentary](#) | [Lifestyle](#) | [Movies](#) | [Travel](#) |
[Archives](#) | [Weather](#) | [Obituaries](#)

[Columnists](#) | [Utah Politics](#) | [2002 Olympics](#) |
[Contact Us](#) | [FAQ](#) | [Privacy Policy](#) | [Print Subscriptions](#) | [Reader Panel](#) | [Newspapers In Education](#)

webmaster@sltrib.com